

Amendments to the claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (withdrawn) An isolated nucleic acid molecule which encodes immunoglobulin receptor, Immunoglobulin superfamily Receptor Translocation Associated, IRTA, protein.
2. (withdrawn) The isolated nucleic acid molecule of claim 1, wherein the IRTA protein is IRTA1 protein comprising the amino acid sequence set forth in Figure 18A (SEQ ID NO:1).
3. (withdrawn) The isolated nucleic acid molecule of claim 1, wherein the IRTA protein is IRTA2 protein comprising the amino acid sequence set forth in Figures 18B-1-18B-3 (SEQ ID NO:3).
4. (withdrawn) The isolated nucleic acid molecule of claim 1, wherein the IRTA protein is IRTA3 protein comprising the amino acid sequence set forth in Figures 18C-1-18C-2 (SEQ ID NO:5).
5. (withdrawn) The isolated nucleic acid molecule of claim 1, wherein the IRTA protein is IRTA4 protein comprising the amino acid sequence set forth in Figures 18D-1-18D-2 (SEQ ID NO: 7).

6. (withdrawn) The isolated nucleic acid molecule of claim 1, wherein the IRTA protein is IRTA5 protein comprising the amino acid sequence set forth in Figures 18E-1-18E-2 (SEQ ID NO: 9).
7. (withdrawn) An isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule is DNA.
8. (withdrawn) The isolated DNA molecule of claim 2, wherein the DNA is cDNA.
9. (withdrawn) The isolated DNA molecule of claim 2, wherein the DNA is genomic DNA.
10. (withdrawn) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule is an RNA molecule.
11. (withdrawn) The isolated DNA molecule of claim 2, wherein the DNA molecule is cDNA having the nucleotide sequence set forth in Figure 18A (SEQ ID NO:2).
12. (withdrawn) The isolated DNA molecule of claim 2, wherein the DNA molecule is cDNA having the nucleotide sequence set forth in Figure 18A (SEQ ID NO:4).
13. (withdrawn) The isolated DNA molecule of claim 2, wherein the DNA molecule is cDNA having the nucleotide sequence set forth in Figure 18A (SEQ ID NO:6).

14. (withdrawn) The isolated DNA molecule of claim 2, wherein the DNA molecule is cDNA having the nucleotide sequence set forth in Figure 18A (SEQ ID NO:8).
15. (withdrawn) The isolated DNA molecule of claim 2, wherein the DNA molecule is cDNA having the nucleotide sequence set forth in Figure 18A (SEQ ID NO:10).1
16. (withdrawn) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule encodes a human IRTA1 protein.
17. (withdrawn) The isolated nucleic acid molecule of claim 1 operatively linked to a promoter of DNA transcription.
18. (withdrawn) The isolated nucleic acid molecule of claim 17, wherein the promoter comprises a bacterial, yeast, insect, plant or mammalian promoter.
19. (withdrawn) A vector comprising the nucleic acid molecule of claim 17.
20. (withdrawn) The vector of claim 19, wherein the vector is a plasmid.
21. (withdrawn) A host cell comprising the vector of claim 20.
22. (withdrawn) The host cell of claim 21, wherein the cell is selected from a group consisting of a

bacterial cell, a plant cell, and insect cell and a mammalian cell.

23. (withdrawn) An isolated nucleic acid molecule comprising at least 15 contiguous nucleotides capable of specifically hybridizing with a unique sequence included within the sequence of the isolated nucleic acid molecule encoding IRTA1 protein of claim 1.

24. (withdrawn) The isolated nucleic acid molecule of claim 23 labeled with a detectable marker.

25. (withdrawn) The nucleic acid molecule of claim 24, wherein the detectable marker is selected from the group consisting of a radioactive isotope, enzyme, dye, biotin, a fluorescent label or a chemiluminescent label.

26-32. (canceled)

33. (withdrawn) A purified IRTA1 protein comprising the amino acid sequence set forth in Figure 18A (SEQ ID NO:1).

34. (withdrawn) The purified IRTA1 protein of claim 33, wherein the IRTA1 protein is human IRTA1.

35. (withdrawn) A purified IRTA2 protein comprising the amino acid sequence set forth in Figures 18B-1-18B-3 (SEQ ID NO:3).

36. (withdrawn) The purified IRTA2 protein of claim 35, wherein the IRTA2 protein is human IRTA2.

37. (withdrawn) A purified IRTA3 protein comprising the amino acid sequence set forth in Figures 18C-1-18C-2 (SEQ ID NO:5).
38. (withdrawn) The purified IRTA3 protein of claim 37, wherein the IRTA3 protein is human IRTA3.
39. (withdrawn) A purified IRTA4 protein comprising the amino acid sequence set forth in Figures 18D-1-18D-2 (SEQ ID NO: 7).
40. (withdrawn) The purified IRTA3 protein of claim 39, wherein the IRTA4 protein is human IRTA4.
41. (withdrawn) A purified IRTA5 protein comprising the amino acid sequence set forth in Figures 18E-1-18E-2 (SEQ ID NO: 9).
42. (withdrawn) The purified IRTA5 protein of claim 41, wherein the IRTA5 protein is human IRTA5.
43. (original) An antibody directed to a purified IRTA protein selected from the group consisting of human IRTA1, IRTA2, IRTA3, IRTA4 and IRTA5.
44. (original) The antibody of claim 43, wherein the IRTA protein is human IRTA protein.
45. (amended) The antibody of claim 43, wherein the antibody is a monoclonal antibody ~~or a polyclonal antibody~~.

46. (amended) The antibody of claim 43, wherein the ~~monoclonal~~ antibody is a murine monoclonal antibody or a humanized monoclonal antibody.

47. (amended) The antibody of claim 43, wherein the antibody is conjugated to a therapeutic agent, ~~wherein the therapeutic agent is selected from the group consisting of a radioisotope, a toxin, a toxoid or a chemotherapeutic agent.~~

48-68. (canceled)

69. (new) The antibody of claim 43, wherein the antibody is a polyclonal antibody.

70. (new) The antibody of claim 47, wherein the therapeutic agent comprises a radioisotope, a toxin or a chemotherapeutic agent.